AMENDMENTS TO THE CLAIMS

1. (currently amended) An optical waveplate comprising a film of polyethylene naphthalate axially stretched in at least one axial direction to form a waveplate having a thickness in a range of 2μm to 25 μm in an amount sufficient to create birefringence such that the waveplate has a predetermined retardance for light passing through it.

2. (currently amended) ~~The~~ An optical waveplate ~~of~~ as defined in claim 1 ~~in the form of a film with a thickness in the range of 2 to about 25 μm~~, wherein the film of polyethylene naphthalate is coupled to an optical waveguide to transmit light therebetween.
3. cancelled
4. cancelled
5. (currently amended) An optical device comprising:

   at least an optical waveguide having ~~each at least~~ two sections, and

   a polyethylene naphthalate optical waveplate film wherein said film is axially stretched in at least one axial direction in an amount sufficient to create a birefringence and which is optically coupled between the two sections of the waveguide to transmit a light signal between said two sections of the waveguide.
6. (previously amended) The optical device of claim 5 wherein the waveplate has a thickness in the range of 2 μm to about 25 μm.
7. (previously amended) The optical device of claim 5 wherein the waveguide defines an optical axis and the waveplate is disposed at an angle in the range 80-88^0 to the optical axis of the waveguide.
8. (previously amended) The optical device of claim 5 wherein the waveguide is an arrayed waveguide grating.
9. (currently amended) An optical device comprising

   a wafer,

   a plurality of waveguides extending across the wafer,

   a slot extending across the waveguides, and

   a polyethylene naphthalate optical waveplate comprised of a film which is axially stretched in at least one axial direction in an amount sufficient to create birefringence, said waveplate being disposed in the slot and extending therealong so as to optically modify optical signals passing through the waveguides.